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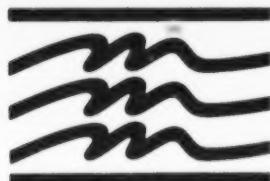
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ABSTRACT

This brochure describes computer software available from Mindscape that is designed for use with at-risk students, i.e., those who have dropped out of school or those who are potential dropouts. An overview of the problem and school- and community-based programs responding to the problem is provided, and use of Mindscape computer software by several such programs is described. Tips for using computer software programs with this group of students are also provided, and it is noted that at-risk students need programs that provide positive reinforcement, and that they prefer student directed programs which provide frequent interaction with the computer. A list of Mindscape products for at-risk students is included.

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Students At Risk: How Computers and Software Can Help

Mindscape is very concerned with the plight of at-risk students — those who have dropped out of school or who are potential dropouts. The problem is complex, and there are no simple solutions. Many experts in the field agree that computers and carefully selected software can help at-risk students. This paper was written to focus attention on various at-risk populations and to suggest Mindscape software programs that may be appropriate for them.

Description of the Problem

The school dropout rate represents a serious problem for our nation's educational system and for our society as a whole. According to Bureau of Labor Statistics data, the overall dropout rate for youths aged 16 - 24 is about 14 percent and has remained constant over the past ten years.¹ For public high schools, the news is worse; the average dropout rate has recently been estimated at nearly 25 percent.²

There is a great variation in dropout rates depending upon location. Dropout rates are higher in cities than in suburban and rural areas. Inner-city public schools have much higher than average dropout rates, some higher than 50 percent.³

The dropout rate tends to be higher for blacks than for whites, and even higher for Hispanics. According to one estimate, 45 percent of Mexican Americans and Puerto Ricans never finish high school.⁴ Furthermore, there is data to suggest that blacks and Hispanics may be less likely to return to school once they have dropped out.⁵

The dropout rate varies in other ways as well. Over 20 percent of the students from low-income households, whose parents or guardians are low-skill wage earners and have limited educational backgrounds, drop out. This is approximately three times the dropout rate of students from the highest end of the socioeconomic scale. Students in vocational and general high school programs drop out at about three times the rate of students in academic,

1. Bureau of Labor Statistics, Current Population Survey, October, 1983 - October, 1985.

2. Educational Commission of the States, 1987.

3. School Dropouts: The Extent and Nature of the Problem, United States General Accounting Office, June, 1986.

4. Make Something Happen, Hispanic Policy Development Project, Inc., New York, NY, 1984.

5. Pathways to the Future, Vol. IV, A Report on the National Longitudinal Surveys of Labor Market Experience in 1982, Center for Human Resource Research, The Ohio State University, Revised April, 1984.

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college-bound programs.⁶

The employment outlook for high school dropouts is poor. As of October 1985, approximately one-fourth of the dropouts between the ages of 16 and 24 who were seeking employment were out of work. Many dropouts do not even seek work.⁷ And educators who work in our nation's prisons note that many criminal justice offenders are deficient in academic basic skills and have dropped out of school.

Why do students drop out? There are a variety of reasons. Some dropouts enter school with negative attitudes about school, learning, and themselves. Many dropouts experience academic failure at school. Other students leave school because they are getting married or are pregnant. Still others leave school to join the workforce. Often, there are a combination of factors.

Overview of School and Community Programs

Just as there are many reasons why students drop out, there are many different types of school- and community-based programs that address the needs of dropouts and potential dropouts. These programs include:

- Basic skills remediation – programs that focus on basic reading, writing, and mathematics skills.
- *English as a second language* – programs that assume students begin with limited or no proficiency in English; these stress listening, speaking, reading, and writing in English.
- *Special education* – a variety of programs for students who are physically disabled, mentally or emotionally handicapped, or who have other learning disabilities.
- Alternative schools – programs for students who have not succeeded in mainstream educational settings, have already dropped out of school, or who have been asked to leave the standard school program; many of these students are a few years older than the average student.
- Programs for functionally illiterate adults – these programs attract adults of varying ages who have discovered that being illiterate is a roadblock to career advancement and personal fulfillment.
- *Programs for criminal justice offenders* – educational programs are offered at most youth facilities and adult correctional facilities; some are voluntary and some are mandatory; the students often read at the sixth-grade level or below.
- Programs on the dangers of substance abuse – school officials are recognizing the role of drug and alcohol abuse in many students' decision to drop out; this program is often part of a school's health curriculum.

6. School Dropouts: The Extent and Nature of the Problem. United States General Accounting Office, June, 1986.

7. Bureau of Labor Statistics, Current Population Survey, October, 1983 - October, 1985.

How Computers Can Help

Computers and software are not a panacea. High quality educational computer programs can, however, help create an effective learning environment for dropouts and potential dropouts.

Since at-risk students are accustomed to experiencing academic failure, software for these students should help guarantee success and should avoid negative reinforcement. At-risk students enjoy programs with frequent interaction with the computer. These students are especially attracted by programs with sound effects and colorful graphics, as well as those that are student-directed. Open-ended writing tools (e.g. word processors) are also popular. Some teachers of at-risk students prefer programs with recordkeeping systems so they can track student successes and failures, and then provide more individualized instruction.

The specific kinds of software used depends on the student population and the goals of the educational program. The **Bronx Literacy Center** in the Bronx, New York, works with students who have serious reading and writing problems. Most read below the sixth-grade level. For reading and language arts skill development, the center has had success with *Developing Reading Power*, *Word Pairs*, *Riddle Magic*, and *Wordmaze*, all by Mindscape. Teachers at the center have used *Story Writer* and *Poetry Express* to encourage students to write. Students are also using *Crossword Magic* to develop their own vocabulary crossword puzzles, which they then give to other students to solve.

Bronx Regional High School is a different kind of alternative educational program in the Bronx, for students 15 to 20 years old. Most of the students have previously left a more traditional school on their own or were asked to leave. They often have reading and writing skill deficiencies, and their skills in other curricular areas are inconsistent. Teachers at the school recommended three Mindscape products: *The Body in Focus*, in which students explore human anatomy; *MasterType's Writer*, a full-function word processor with a built-in tutorial; and the *High School Math Competency Series Worksheet Generator*, a tool for teachers that was described as "a terrific time saver."

The **Eckerd Family Youth Alternative Program** is a privately-managed, alternative school district in the state of Florida. Its student population is similar to that of the Bronx Regional High School. Shirley Johnson, the remedial reading teacher, is using *Vocabulary Challenge* with some of her students. She finds that two of the program's activities, a timed word association drill and a classification game, are particularly well-suited for her students. Ms. Johnson especially liked the program's printouts of the words a student knew and did not know.

The **Pittsburgh Literacy Initiative** offers a program for functionally illiterate, learning disabled adult dropouts. Joseph Stimpfl, the program's instructor, feels that typing instruction is an important component of the literacy curriculum. Comparing typing to writing by hand, Stimpfl finds that typing "eliminates many (of the students') letter misproduction errors." Students in his class use Mindscape's *MasterType*. They find the ever-available fingering chart helpful and especially enjoy the letter practice designed as a game.

Don Carpenter is a teacher at the **Sierra Conservation Center**, a correctional facility in Jamestown, California. His students are inmates, 18 to 60 years of age, who are in need of basic language arts and mathematics remediation. They work with *Subject-Verb Agreement*

and the *Success with Math: Fractions Series*. Carpenter notes that these programs break down the instruction into small, learnable units, helping to guarantee success for students who may never have experienced academic success before.

The students in any one program can vary widely in academic skills, temperament, and interests. Consider, for example, a team of young adults in New York City's **City Volunteer Corps** (CVC). Most of the members are former dropouts. They receive a small stipend and on-the-job training while they provide services to various community groups. CVC members must also be enrolled in a school program. Those members who were interested in obtaining a driver's license tried out *Keys to Responsible Driving* and spoke highly of it.

The Teacher's Role in Using Computers with At-Risk Students

The educators consulted in preparing this booklet offered some suggestions for using software with at-risk students. They mentioned that the teacher should be an active participant in the learning process when students use computers. Since many of these students have below-average reading abilities, teachers should not automatically assume that students can read and understand procedural instructions on their own. In addition, programs that are designed to provide highly motivating skills practice often require the teacher to present concepts in class before students use the computer.

Grouping is another consideration. While some students will insist on working alone, many work best in pairs or small groups. Some students like to collaborate with others. Other students thrive on competition; if a program involving competition is used, the competing groups should be evenly matched in ability.

Mindscape Products for At-Risk Students

The following is a comprehensive list of Mindscape software programs that can be used successfully with at-risk students. We understand that these students vary widely in their academic skills and interests. Not every software title on this list will be appropriate for every academic program, or for every student within a given program. We urge you to try out the software with your students before deciding to use it on a regular basis. Mindscape software carries an unconditional guarantee of satisfaction. If you find that a specific Mindscape program is not appropriate for your students, you may return it for a full refund.

General Purpose Tools

Crossword Magic
Principal's Assistant:
The School Publisher

Reading

Developing Reading Power
The Reading Workshop

Language Arts

Capitalization Plus
Grammar Mechanics
Hinky Pinky
Mind Over Matter
The Novel Approach
Subject-Verb Agreement
Vocabulary Challenge
Wordmaze
Word Pairs

Writing

MasterType's Writer
MasterWrite
Poetry Express
Prewrite
Rebus Writer
Riddle Magic
Story Writer
That's My Story

Typing

Keyboard Cadet
MasterType
Typing Well

Mathematics

Success with Math:
High School Math
Competency Series
Success with Math:
High School Math
Worksheet Generator
Jumping Math Flash
Space Math
Success with Math Series
Understanding Math Series

Health and Science

The Body in Focus
Drug Alert!
Making Circuits
That's Life: Human Body
Exploration